DOCUMENT RESUME

ED 073 864 RC 006 814

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TITLE Iowa Population Trends.
INSTITUTION Iowa State Univ. of Science and Technology, Ames. Cooperative Extension Service.
SPONS AGENCY Bureau of Higher Education (DHEW/OE), Washington, D.C.
REPORT NO ICES-Pm-517
PUB DATE Sep 71
NOTE 32p.

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Age Groups; *Area Studies; *Census Figures; Community Services; *Demography; Migration Patterns; Planning; *Population Trends; Reproduction (Biology); *Rural Population; Sex Differences; Tables (Data)
IDENTIFIERS *Iowa

ABSTRACT

The trends in population distribution and the composition of Iowa's population are reported in this document in order to provide the leaders and citizens of Iowa with information to assist them in making decisions relating to growth and development. Birth and death rates, rural and urban residence, population by race, and age structure are discussed under the heading of United States and Iowa Population Trends. Rural-urban trends and migration are discussed under the headings of Area Population Trends and County Population Trends. It was found that population growth has remained steady and that out-migration has declined in Iowa between 1960 and 1970. Significant shifts have occurred in the number and proportion of people living in rural and urban areas--the rural population has continued steadily to decline, while the trend toward urbanization has continued. The Black population (1.2% of the total population) has increased more than 7,000, up about 28% from 1960. American Indians, Japanese, Chinese, and other races increased from nearly 3,500 in 1960 to slightly over 9,000 in 1970. The findings also indicated that, during the 1960s, Iowa's birth rate has declined and its death rate has increased and that the 65 and over age group increased by nearly 22,500, an increase of from 11.9% to 12.4% since 1960. Some implications of the population shifts are discussed in terms of employment trends and the planning of community services. (HEC)

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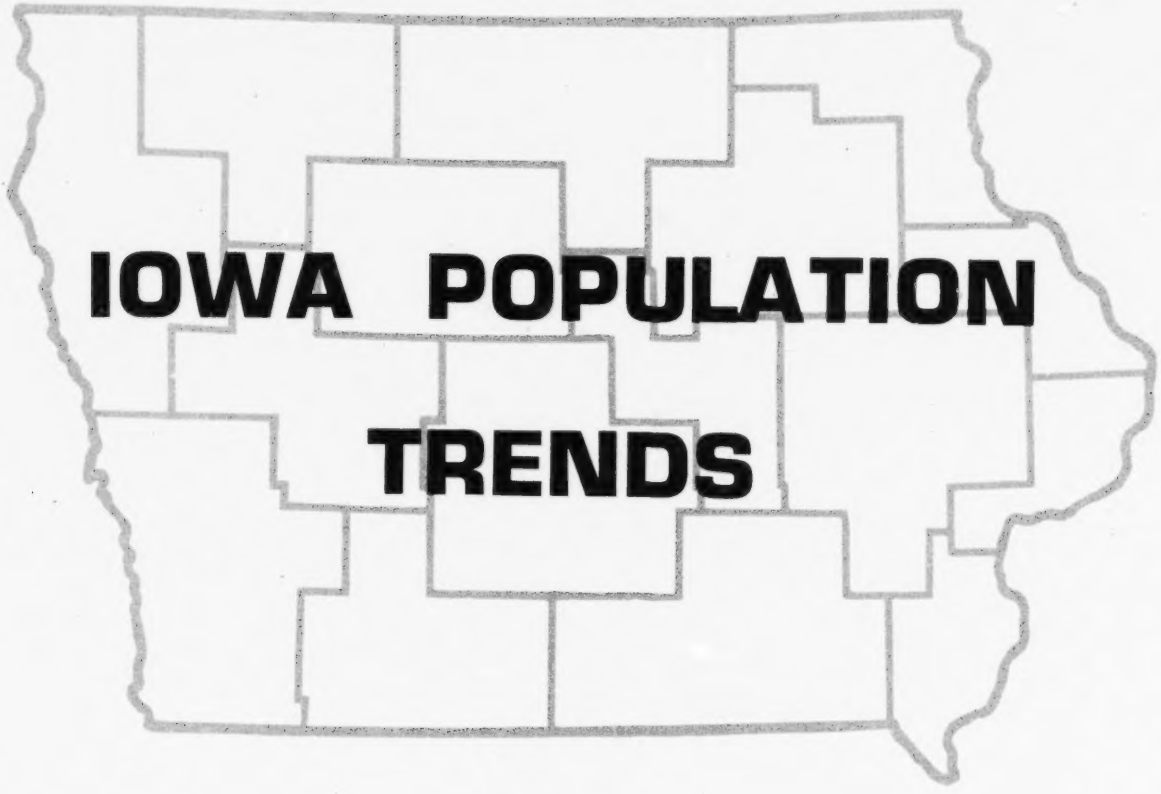

IOWA POPULATION TRENDS

John L. Tait
and
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RC006814

Iowa State University of Science and Technology
Cooperative Extension Service
Ames, Iowa. . . .September 1971. . . .Pm-517

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This report was prepared under a cooperative research project of the Iowa Cooperative Extension Service and the Iowa Agriculture and Home Economics Experiment Station (Exp. Sta. Project No. 1850, H. C. Chang, Assistant Professor, sociology, Leader). The publication of the report was funded through a grant from Iowa Community Services under Title 1 of the Higher Education Act of 1965 for use in the "Government By the People" program. This program is conducted by the Board of Regents Institutions of Higher Learning--the State University of Iowa, Iowa State University and the University of Northern Iowa.

Cooperative Extension Service, Iowa State University of Science and Technology and the United States Department of Agriculture cooperating. Marvin A. Anderson, director, Ames, Iowa. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

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SUMMARY

In 1970, Iowa's population was slightly more than 2.8 million. Although the population growth rate in Iowa has been steady, its growth rate has not kept pace with the national growth rate. During the past decade, the net out-migration totaled about 180,000, compared to nearly 236,500 from 1950 to 1960. Out-migration declined in both number and percent from the previous two decades.

Within Iowa, significant shifts have occurred in the number and proportion of people living in rural and urban areas. The rural population has continued to steadily decline, while the trend toward urbanization has continued. Generally, the larger urban and suburban communities have experienced a greater growth rate than Iowa's smaller communities. The only category of communities which remained relatively constant in population was the communities with less than 1,000 population.

Nearly 82 percent of Iowa's nearly 33,000 black population in 1970 was located in urban communities within six counties, Polk, Black Hawk, Scott, Linn, Lee and Woodbury. During the past decade, the black population increased by 1,000 or more in Scott, Black Hawk, and Polk counties. Although representing a relatively small proportion (1.2 percent) of the total population, the black population increased by more than 7,000, up about 28 percent from 1960. American Indians, Japanese, Chinese and other races increased from nearly 3,500 in 1960 to slightly over 9,000 in 1970.

With a declining birth rate and an increasing death rate during the 1960's, the natural increase in population (excess of births over deaths) decreased. In 1970, there were approximately 85,500 fewer individuals in the 0-9 age category than in 1960, while the 10-24 age category increased by nearly 153,500. With continuing out-migration, there were approximately 40,500 fewer persons in the 25-44 age range than in 1960. During the past 10 years, the 65 and over age group increased by nearly 22,500. This represented 12.4 percent of Iowa's population, up from 11.9 percent in 1960. In 1970, Iowa was surpassed only by Florida in the percentage of its population 65 years of age or older. There has been a tendency for Iowa's population to become older.

The trend toward a greater concentration of Iowa's population in the urban and suburban areas of eastern and central Iowa continued during the past decade. During the same period, the more rurally oriented areas of northern, southern, and western Iowa continued to decline in total population. While out-migration and population decline in rural areas has continued, the number and proportion of Iowa's population living in urban communities of 2,500 or more has continued to increase. With the exception of the Davenport and Cedar Rapids Areas which had a net in-migration, all areas in Iowa experienced a net out-migration. The areas which are predominately rural tended to have the highest rates of out-migration.

During the past decade, 25 counties increased in total population compared to 41 in the previous decade. Seventy-four counties had population decreases, compared with 58 in 1950-60. Generally, counties experiencing the greatest increase in population were located in eastern and central Iowa. The rural counties in southern, western, and northern Iowa tended to decline in population during the past 10 years.

In 1970, 17 counties were classified as 100 percent rural, i.e., 100 percent of the population lived in incorporated communities of less than 2,500 and outlying rural areas. Fifty-eight counties had between 50 and 100 percent of the population living in rural areas. Twenty-four counties had 50 percent or more of the residents living in urbanized areas and incorporated communities of 2,500 or more outside urbanized areas.

Approximately 50 percent of Iowa's population lived in 15 metropolitan counties in 1970 that had one or more population centers of 25,000 or more, while approximately 50 percent lived in 84 counties, none of which had a population center of 25,000 or more. In comparison with the previous decade, this reflects a continued trend toward urbanization in Iowa.

Only seven counties showed a net in-migration during the past decade, while 92 counties experienced a net out-migration. Although the net out-migration in Iowa declined approximately 56,000 during the past decade as compared to the previous decade, 16 counties showed an increase in the percentage net out-migration during the past 10 years. The rate of out-migration declined in 73 counties during the past decade. In general, the rate of out-migration declined significantly in several southern Iowa counties.

INTRODUCTION*

Iowa has experienced rapid shifts in its population distribution. The technological progress in agriculture has reduced the number of farms and the farm population. While population has been rapidly declining in the predominately rural areas, a trend toward urbanization and the creation of large metropolitan areas has continued. These shifts in population distribution have had a significant impact on Iowa's communities.

The major objective of this publication is to provide the leaders and citizens of Iowa with information about the trends in population distribution and the composition of Iowa's population. This information will assist them in making decisions affecting personal, community, area and statewide growth and development.

UNITED STATES AND IOWA POPULATION TRENDS

In 1970, Iowa's population was 2,825,041. This represents an increase of nearly 600,000 since 1900. During the same period, the population of the United States increased from about 76 million to approximately 203 million (table 1). Although the population growth rate in Iowa has been steady, its growth rate has not kept pace with the national growth rate. Iowa, the nation's fifteenth most populous state in 1910, had slipped to the twenty-fifth most populous state in 1970.

Table 1. United States and Iowa population trends, 1900-1970.

Census Year	—Population Totals— United States	Iowa	—Percentage Change— United States	Iowa	Iowa's Rank Among States
1900	75,994,575	2,231,853	-----	-----	10
1910	91,972,266	2,224,771	+21.0	-0.3	15
1920	105,710,620	2,404,021	+14.9	+8.1	16
1930	122,775,046	2,470,939	+16.1	+2.8	19
1940	131,669,275	2,538,268	+ 7.2	+2.7	20
1950	150,697,361	2,621,073	+14.5	+3.3	22
1960	179,323,175	2,757,537	+19.0	+5.2	24
1970	203,184,772	2,825,041	+13.3	+2.4	25

Source: U.S. Bureau of the Census

Iowa has experienced some significant population trends. In identifying these trends, three major components of population shifts and changes were considered--birth rates, death rates and migration. The birth rates used in this publication are "crude" birth rates, i.e., the number of children born per 1,000 population. The death rates are also computed on the 1,000 population base. When births outnumber deaths, a "natural increase" in population occurs. If deaths exceed births, then a "natural decrease" in population results.

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* Prepared by John L. Tait and Arthur Johnson, Extension Sociologists.

Migration, the third major component considered, is a two-way process. In any area, some people move into the area, others move away. In this publication, "net migration" figures will be discussed. Only the net migration figures are given in this publication although these reflect the degree or intensity of the two-way process.

Birth and Death Rates

Table 2 shows the trends in birth and death rates for the United States and Iowa. Little difference exists in the birth trends for the nation and Iowa. In 1940, the death rates for the U.S. and Iowa were similar. Since 1940, Iowa has shown a slightly higher death rate than for the nation. The slight upward trend in death rates in Iowa reflects the increasing proportion of the aged (65 or older) among Iowa's population.

Table 2. Birth and death rates for the United States and Iowa, 1940-1969.

Census Year	Birth Rate[1]		Death Rate[1]	
	United States	Iowa	United States	Iowa
1969[2]	17.6	17.2	9.6	10.7
1960	23.7	23.3	9.5	10.4
1950	24.1	24.1	9.6	10.3
1940	19.4	18.6	10.8	10.4

[1]Per 1,000 population.
[2]Last complete year for which data were available.
Sources: Vital Statistics Rates in the United States, 1940 and 1960; Iowa Vital Statistics

In fig. 1, the birth and death rates for Iowa are presented for the 15-year period, 1955-1969. The birth rates per 1,000 population have declined from 23.9 in 1955 to 17.2 in 1969. Since 1959, birth rates have shown a steady decline until 1969 when they showed a slight increase. Death rates have remained relatively constant during the 15-year period increasing from 10.0 per 1,000 population to 10.7 in 1969.

During 1960-70, the natural increase (excess births over deaths) in Iowa's population was 247,544 (table 3). If there had been zero migration during the past decade, Iowa would have had a potential population of 3,005,081 in 1970. Since Iowa's population was 2,825,041 in 1970, this means that the net migration from the state during the last decade was -180,040*. This was a decline of 6.5 percent. Since most of the natural increase has not been maintained due to loss through migration, the state's total population has increased less than it would have if all the natural increase had remained within the state.

*Migration data in this publication are based upon analysis made by Dr. H. C. Chang, Assistant Professor, Sociology, Iowa State University Ames, Iowa. 1971.

Fig. 1. Iowa Birth and Death Rates, 1955-1969.

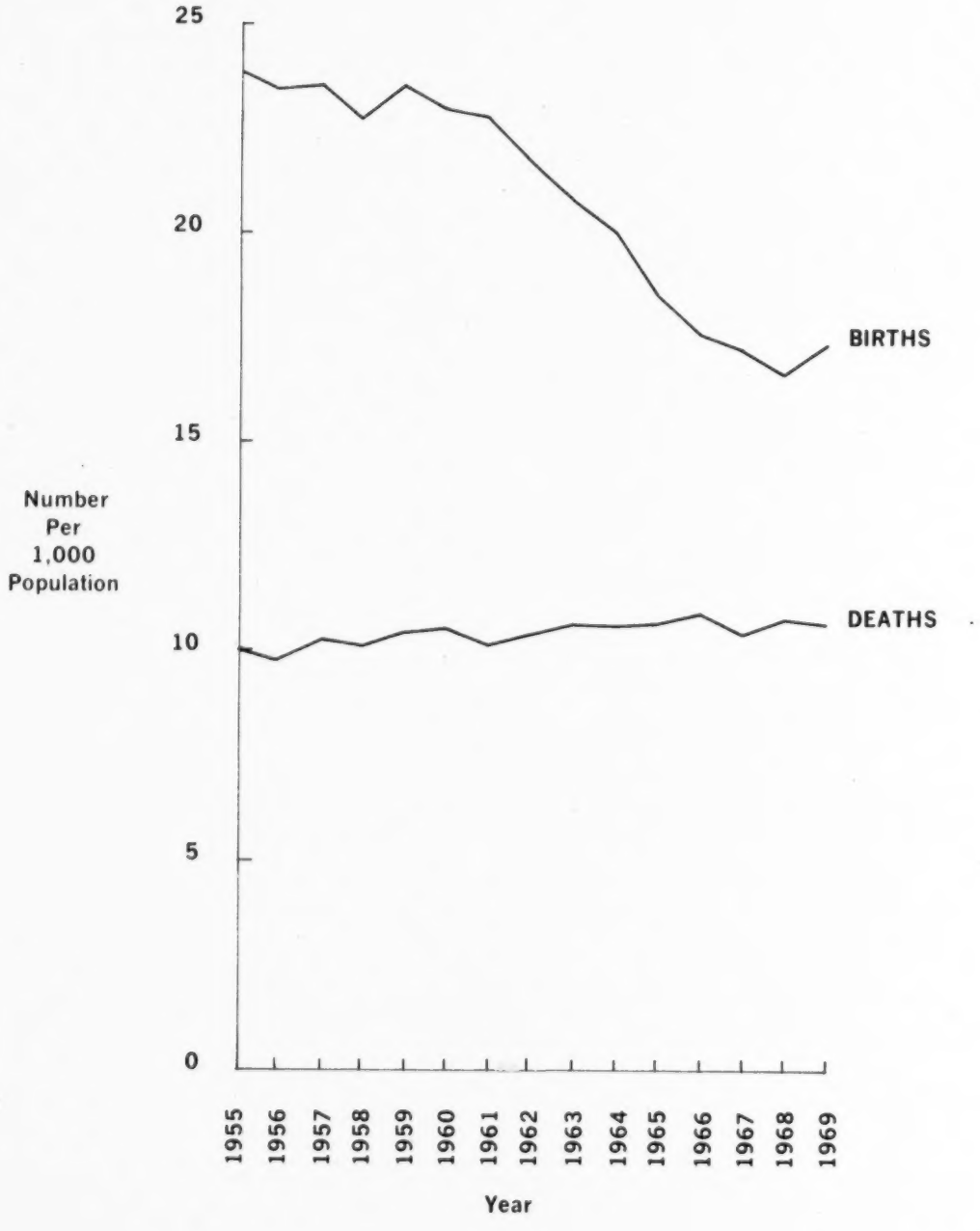


Table 3. Iowa migration trends, 1940-1970.

Years	Beginning of Decade	Population end of Decade	Actual Change	Percent Change	Natural Increase[1]	Potential Population[2]	Net Change[3]	Percent Net Migration
1940-1950	2,538,268	2,621,073	82,805	+3.3	265,317	2,803,585	-182,512	-7.2
1950-1960	2,621,073	2,757,537	136,464	+5.2	372,779	2,993,852	-236,315	-9.0
1960-1970	2,757,537	2,825,041	67,504	+2.5	247,544	3,005,081	-180,040	-6.5

[1]Excess of births over deaths.

[2]Total of population at beginning of the decade plus the natural increase.

[3]Potential population minus actual population at the end of the decade.

Sources: Computed from U.S. Bureau of the Census and Iowa Vital Statistics data.

Table 4. Population of communities, by size, 1940-1970.

Size of Community	1940 No.	1940 Total Population	1950 No.	1950 Total Population	% Change 1940-1950	1960 No.	1960 Total Population	% Change 1950-1960	1970 No.	1970 Total Population	% Change 1960-1970
50,000 & over	5	422,085	5	473,999	12.3	7	663,159	39.9	7	693,813	4.6
25,000-49,999	6	196,083	8	270,030	37.7	7	219,377	-18.8	9	300,620	37.0
10,000-24,999	10	153,165	10	152,512	-0.4	11	169,543	11.2	11	171,650	1.2
5,000- 9,999	23	149,498	28	180,738	20.9	33	227,074	25.6	36	254,816	12.2
2,500- 4,999	45	163,427	42	152,154	-6.9	46	161,370	6.1	48	168,611	4.5
1,000- 2,499	127	191,509	128	195,260	2.0	134	201,427	3.2	136	213,529	6.0
under 1,000	715	279,495	712	273,268	-2.2	706	267,295	-2.2	705	267,408	0.1
TOTAL	931	1,555,262	933	1,697,961	9.2	944	1,909,245	12.4	952	2,070,447	8.4

Source: Computed from U.S. Bureau of the Census data.

Out-migration during the past decade declined by 56,275 from the high out-migration level of 236,315 during the previous decade. The net out-migration during the past 10 years represented the lowest out-migration during the past three decades.

Rural and Urban Residence

Within Iowa, significant shifts have occurred in the number and proportion of people living in rural and urban areas (fig. 2). According to the 1970 Census definition, the urban population comprises all persons living in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas. The population not classified as urban constitutes the rural population.

In 1900, approximately 75 percent of Iowa's population lived in rural areas, while 25 percent resided in urban areas. Since 1900, the rural population has been steadily declining both in number of residents and the proportion of the state population, while the trend toward urbanization has continued. The 1960 Census represented the first time in history that a majority (about 53 percent) was classified as urban. During the 1960's, the trend toward further urbanization continued. By 1970, the proportion of the population living in urban communities had increased to 57 percent, while the proportion classified as rural continued to decline reaching approximately 43 percent.

In table 4, population trends of incorporated communities according to size are presented. The growth of Iowa's incorporated communities reflect the general movement of Iowa toward a more urbanized state. Generally, the larger urban and suburban communities have experienced a greater growth rate than Iowa's smaller communities. The only category of incorporated places which remained relatively constant in population were the incorporated communities with less than 1,000 population. The trend in Iowa has been toward a greater concentration of population in urban communities.

Population By Race

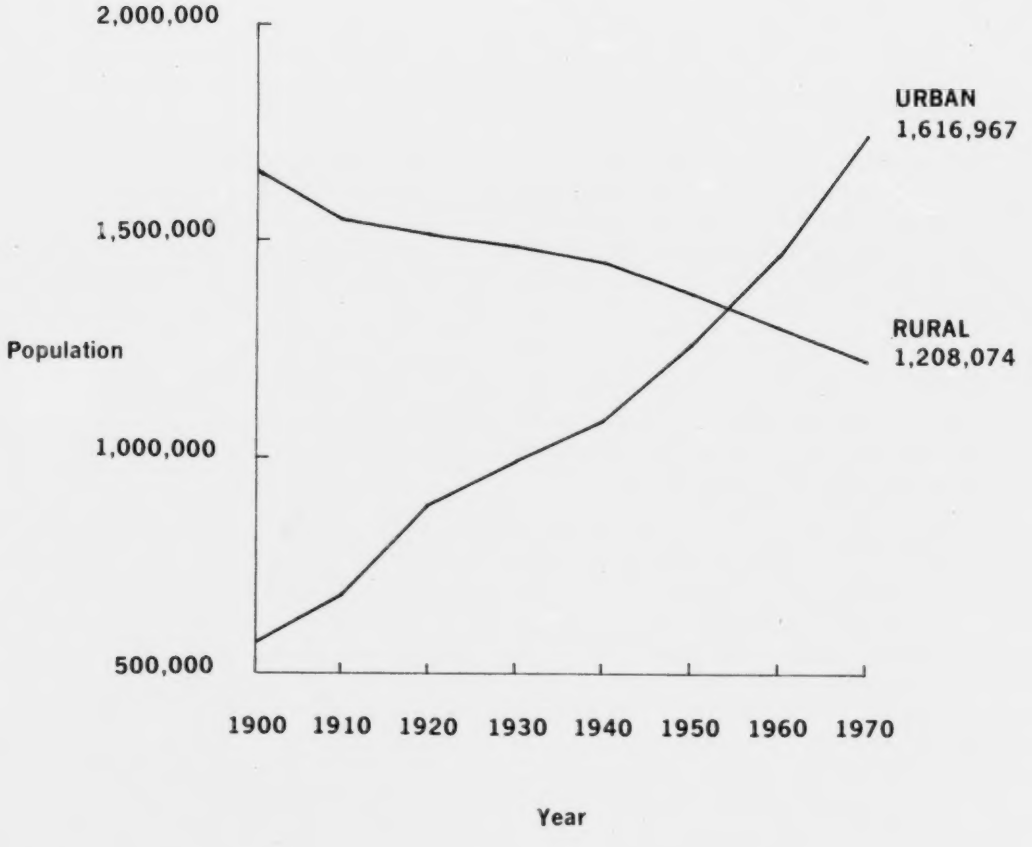
In table 5, the race distribution trends of Iowa's population are presented. During the past two decades, the black population increased by 12,904. This represented an increase from 0.7 percent of the population in 1950 to 1.2 percent in 1970. The white population increased by 183,881 during the same period. Although the white population increased in numbers, the white proportion of the total population declined from 99.2 percent in 1950 to 98.5 percent in 1970.

Table 5. Race distribution of Iowa's population, 1950-1970.

	1950		1960		1970	
Race	No.	%	No.	%	No.	%
Black	19,692	0.7	25,354	0.9	32,596	1.2
White	2,599,546	99.2	2,728,709	99.0	2,783,427	98.5
Others	1,835	0.1	3,474	0.1	9,018	0.3
TOTAL	2,621,073	100.0	2,757,537	100.0	2,825,041	100.0

Source: U.S. Bureau of the Census

Fig. 2. Iowa Rural-Urban Trends, 1900-1970.



The races categorized as others include American Indians, Japanese and Chinese. "Other"races increased by 7,183 during the past 20 years. This represented an increase from 0.1 percent of the population to 0.3 percent.

Nearly 82 percent or 26,573 of Iowa's black population was living in six counties in 1970. The black population trends in these six counties during the past decade are presented in table 6. Within these counties the black population was predominately located in the cities of Waterloo, Keokuk, Ft. Madison, Cedar Rapids, Des Moines, Davenport and Sioux City.

Table 6. Black population trends in six Iowa counties.

Counties	Black Population 1960 No.	1970 No.	Change No.	% Change 1960-1970
Black Hawk	4,850	6,644	1,794	37.0
Lee	1,039	1,033	-6	-0.6
Linn	1,183	1,807	624	52.8
Polk	10,535	11,916	1,381	13.1
Scott	1,866	4,160	2,294	122.9
Woodbury	1,257	1,013	-244	-19.4

Source: Computed from U.S. Bureau of the Census data.

The black population increased by more than 1,000 in Black Hawk, Polk, and Scott counties,with Scott County experiencing the greatest increase. Woodbury County had the greatest decline in black population during the past decade. Although representing a relatively small proportion of the total, the black population is predominately located in Iowa's larger urban communities.

Age Structure

During the past decade, changes occurred in the age structure of Iowa's population. Fig. 3 presents the age pyramid for 1960, while fig. 4 presents the age structure for 1970.

The age group 0-9 declined by 85,720 during the past decade, while the age group 10-24 increased by 153,512. In 1970, approximately 45 percent of Iowa's population was 24 years of age and under.

The 25-44 age group declined by 40,297 during the past decade. The 45-64 age group increased by 16,736. The over 65 age group increased by 22,608. In 1970, 12.4 percent of Iowa's population was 65 years and over. This compared to 11.9 percent in 1960. In 1970, Iowa was surpassed only by Florida in the percentage of its population 65 years of age or older. There has been a tendency for Iowa's population to become older.

Fig. 3. Age and Sex Structure of Iowa's Population—1960.

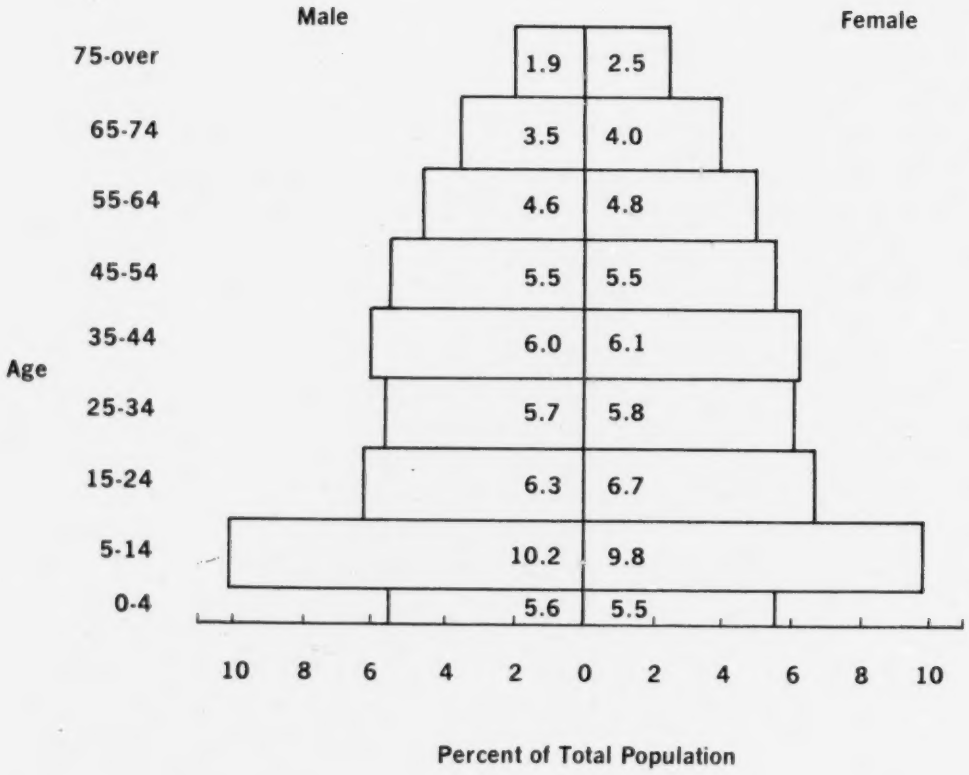
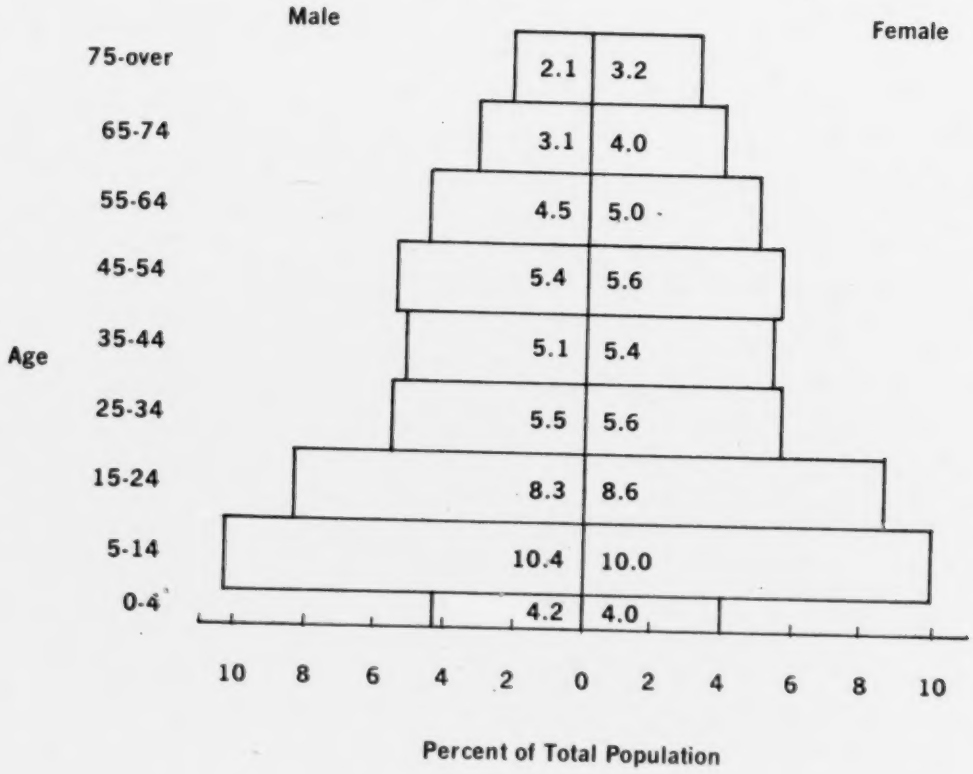


Fig. 4. Age and Sex Structure of Iowa's Population—1970.



AREA POPULATION TRENDS

The area population, rural-urban and migration trends are presented in this section. The areas for this analysis are the 16 multi-county areas suggested for planning purposes. Fig. 5 presents the 16 multi-county areas and their major cities.

The multi-county area population trends are presented in fig. 6. During the past two decades, seven areas in eastern and central Iowa (10 - Cedar Rapids, 9 - Davenport, 8 - Dubuque, 11 - Des Moines, 7 - Waterloo, 16 - Burlington, and 6 - Marshalltown) increased in total population. The rate of population growth declined in these seven areas during the last decade as compared to 1950-60.

Four areas that increased slightly in population during 1950-1960 declined during the last 10 years. The areas were Council Bluffs (13), Ft. Dodge (5), Sioux City (4), and Mason City (2).

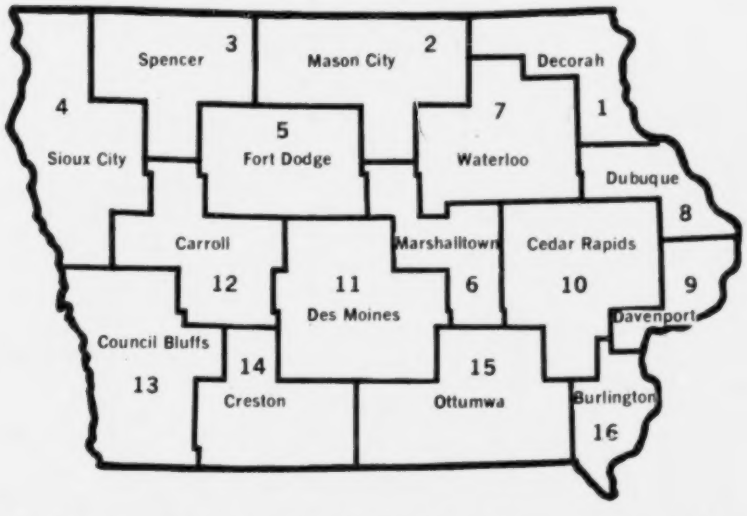


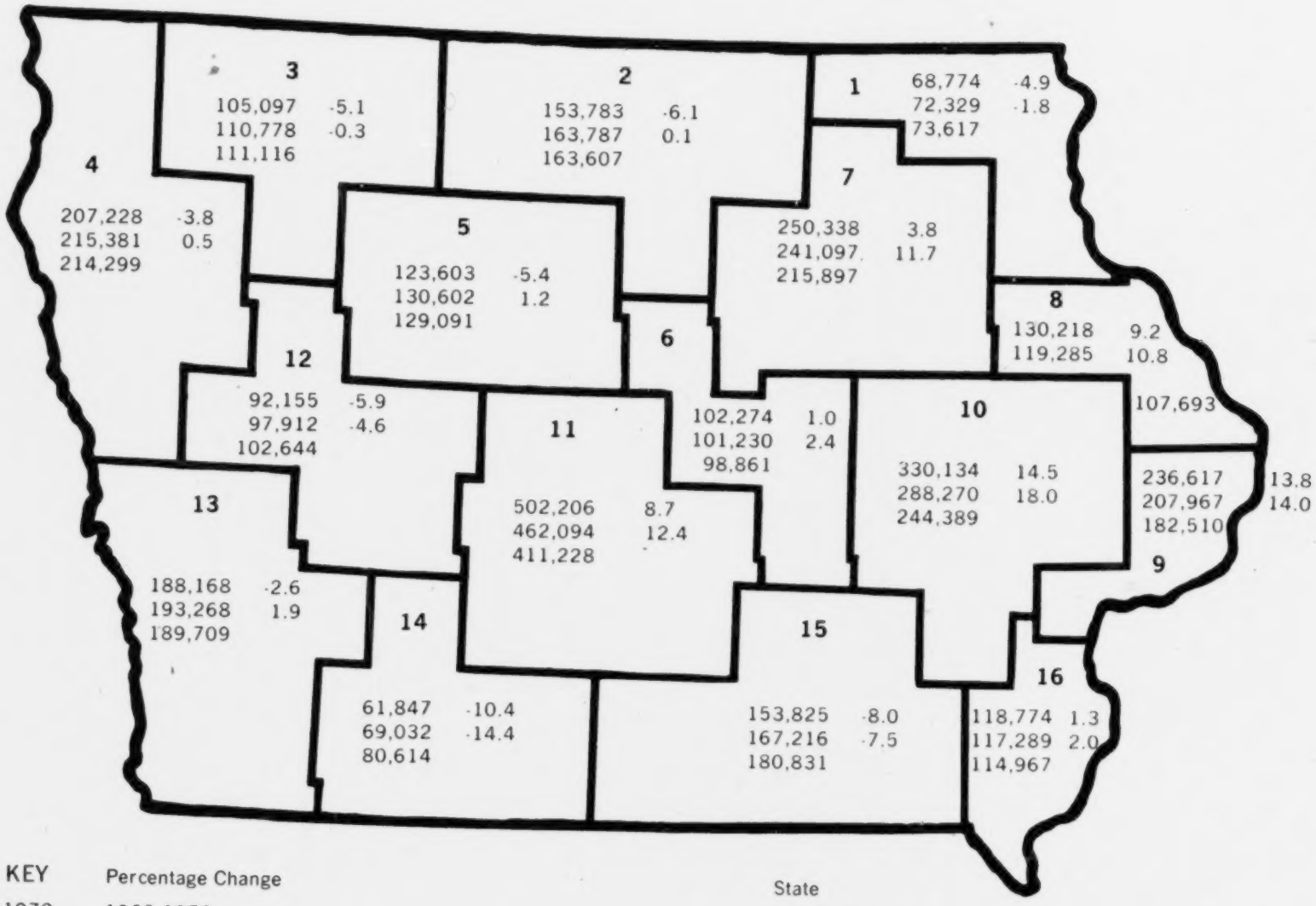
Fig. 5. Multi-County Areas Suggested for Planning Purposes and Major Cities.

During both the 1950-60 and 1960-70 decades, five areas declined in population--Decorah (1), Spencer (3), Carroll (12), Ottumwa (15), and Creston (14). In the Decorah, Spencer and Carroll areas, the rate of population decline increased during the past 10 years, while the population decline in Ottumwa continued at approximately the same rate as the previous decade. The rate of population decline in Creston slowed from -14.4 percent in the previous decade to -10.4 during the 1960-70.

Rural-Urban Trends

Table 7 presents the multi-county rural-urban population trends. In 14 areas, the trend toward urbanization continued during the past 10 years, while the percentage of the population living in rural areas continued to decline. In the Dubuque area (8), the percentage of the population classified as living in rural and urban areas during the past decade remained constant. In one area, Burlington (16), the percentage of the population

Fig. 6. Multi-County Population Trends, 1950-197).



KEY

	Percentage Change
1970	1960-1970
1960	1950-1960
1950	

State

2,825,041	2.5
2,757,537	5.2
2,621,073	

Table 7. Multi-county rural-urban population trends, 1950-1970.

Area	Population Totals											
	1950				1960				1970			
	Rural	%	Urban	%	Rural	%	Urban	%	Rural	%	Urban	%
Area 1	60,761	82.5	12,856	17.5	58,446	80.8	13,883	19.2	53,506	77.8	15,268	22.2
Area 2	104,292	63.8	59,315	36.2	100,137	61.1	63,650	38.9	89,530	58.2	64,253	41.8
Area 3	79,677	71.7	31,439	28.3	72,584	65.5	38,194	34.5	63,672	60.5	41,425	39.5
Area 4	107,996	66.8	106,303	33.2	99,693	46.3	115,688	53.7	89,043	43.0	118,185	57.0
Area 5	85,820	66.5	43,271	33.5	79,533	60.9	51,069	39.1	71,726	58.0	51,877	42.0
Area 6	61,275	62.0	37,586	38.0	56,777	56.1	44,453	43.9	54,976	53.8	47,298	46.2
Area 7	110,341	51.1	105,556	48.9	112,126	46.5	128,971	53.5	107,650	43.0	142,688	57.0
Area 8	49,728	46.2	57,965	53.8	48,791	40.9	70,494	59.1	53,321	40.9	76,897	59.1
Area 9	48,609	26.6	133,901	73.4	49,139	23.6	158,828	76.4	46,081	19.5	190,536	80.5
Area 10	116,269	47.6	128,120	52.4	122,707	42.6	165,563	57.4	117,381	35.6	212,753	64.4
Area 11	133,805	32.5	277,423	67.5	128,778	27.9	333,316	72.1	127,998	25.5	374,208	74.5
Area 12	81,555	79.5	21,089	20.5	74,448	76.0	23,464	24.0	66,311	72.0	25,844	28.0
Area 13	105,413	55.6	84,296	44.4	95,240	49.3	98,028	50.7	85,428	45.4	102,740	54.6
Area 14	68,875	85.4	11,739	14.6	58,015	84.0	11,017	16.0	47,949	77.5	13,898	22.5
Area 15	108,306	60.0	72,525	40.0	95,214	56.9	72,002	43.1	85,867	55.8	67,958	44.2
Area 16	47,413	41.2	67,554	58.8	43,397	37.0	73,892	63.0	47,635	40.1	71,139	59.9
TOTAL	1,370,135	52.3	1,250,938	47.7	1,295,025	47.0	1,462,512	53.0	1,208,074	42.8	1,616,967	57.2

Source: Computed from the U.S. Bureau of Census data.

classified as living in rural areas increased. The population of the major urban centers (Burlington, Fort Madison, and Keokuk) within the Burlington area declined during the past decade.

More than 50 percent of the population lived in urban communities of 2,500 or more in half of the 16 areas. These areas were Sioux City (4), Waterloo (7), Dubuque (8), Davenport (9), Cedar Rapids (10), Des Moines (11), Council Bluffs (13), and Burlington (16). The Davenport area with 80.5 percent had the highest percentage living in urban communities.

In eight areas, 50 percent or more of the population lived in rural communities. The areas were Decorah (1), Mason City (2), Spencer (3), Fort Dodge (5), Marshalltown (6), Carroll (12), Creston (14), and Ottumwa (15). The Decorah and Creston areas, with 77.8 percent and 77.5 percent, respectively, had the highest percentage of its population living in towns of less than 2,500 and the open country.

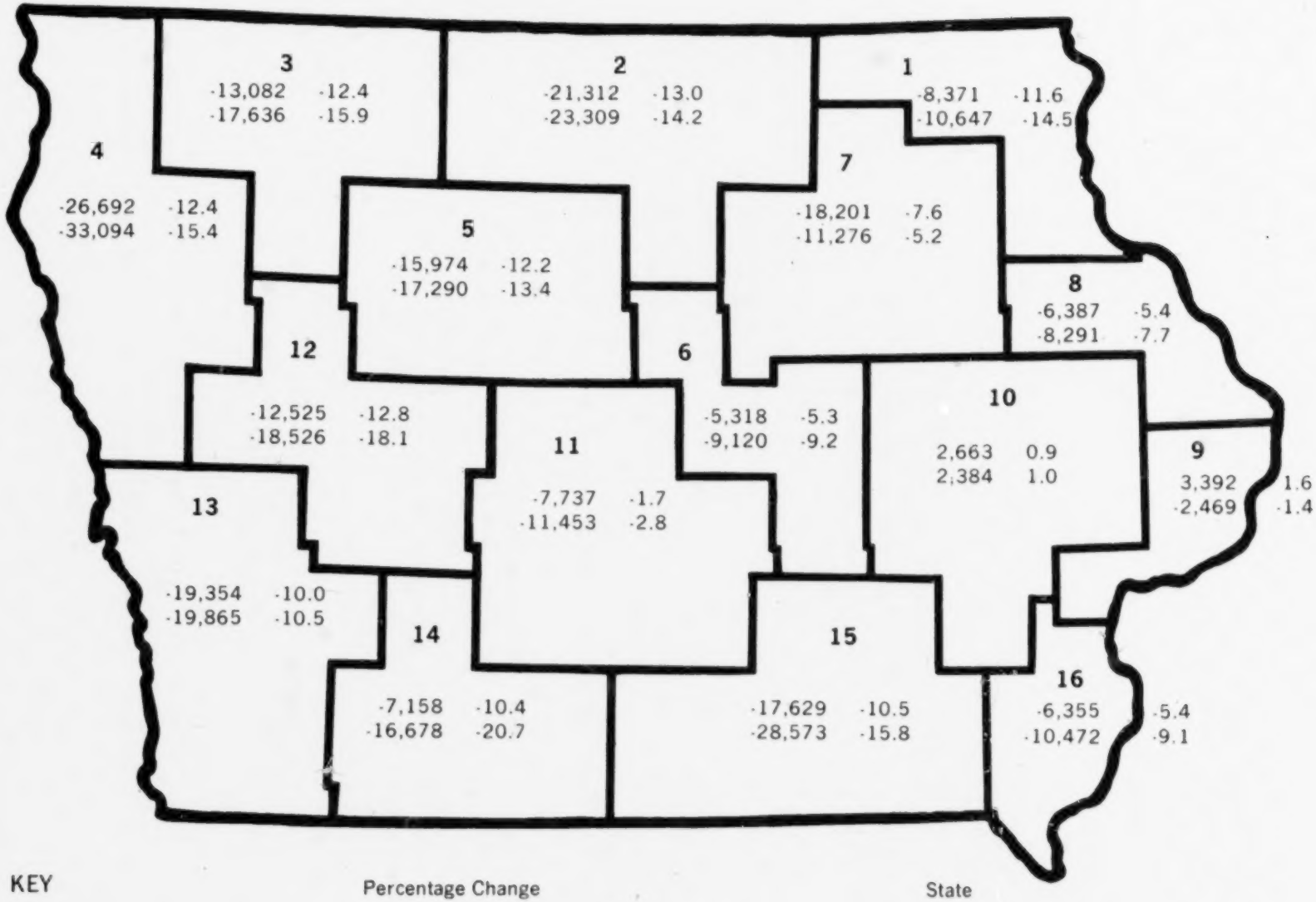
Migration

The multi-county migration trends are presented in fig. 7. The Davenport and Cedar Rapids areas, which had a net in-migration of approximately 3,400 and 2,700, respectively, were the only areas to have net in-migration during the 1960's. During the previous decade, the Davenport area had a net out-migration of -2,469, while the Cedar Rapids area had a net in-migration of 2,384.

The remaining 14 areas in Iowa experienced net out-migration during both 1950-60 and 1960-70. The net out-migration during the past decade for these areas ranged from approximately -5,300 in the Marshalltown area to approximately -26,700 in the Sioux City area.

Fourteen of the 16 areas experienced out-migration during both decades. The net out-migration declined in these 14 areas during the past decade, with the exception of the Waterloo area which increased from nearly 11,300 in 1950-60 to approximately 18,200 in 1960-70. This was the only area in Iowa in which net out-migration increased during the past decade.

Fig. 7. Multi-County Migration Trends, 1950-1970.



KEY	Percentage Change	State	
1960-1970 Net Migration	1960-1970 % Net Migration	-180,040	-6.5
1950-1960 Net Migration	1950-1960 % Net Migration	-236,315	-9.0

COUNTY POPULATION TRENDS

In table 8, the population trends of Iowa counties during 1950-70 are presented. Significant changes have occurred in population trends of counties during the past two decades. During 1950-60, 41 counties increased in population, while 58 declined. From 1960 to 1970 only 25 counties increased in population, while 74 had a population decrease.

Table 8. Population trends of Iowa counties, 1950-1970.

Percentage Change	1950-1960 Number of Counties	1960-1970 Number of Counties
Over 10% Increase	12	6
0 - 10% Increase	29	19
0 - 10% Decrease	43	53
Over 10% Decrease	15	21
TOTAL	99	99

Source: Computed from U.S. Bureau of Census data.

Fig. 8 presents the county population trends for 1960-70. The percentage changes in population of counties ranged from an increase of 34.4 percent in Johnson County to a decline of 19.4 percent in Ringgold County.

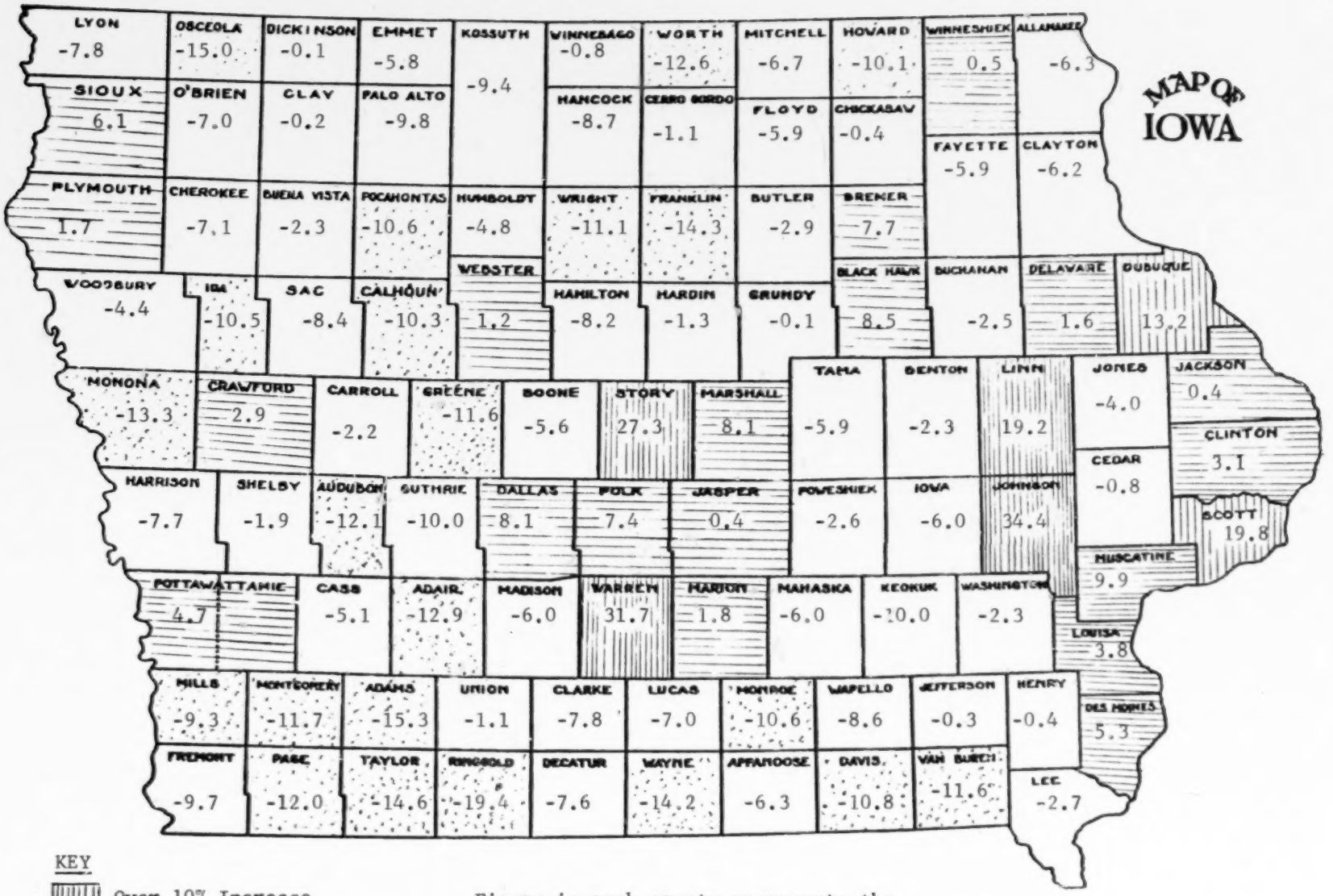
Counties showing the greatest increase in population during 1960-70 were located in eastern and central Iowa. In eastern Iowa, Johnson, Scott, Linn and Dubuque counties increased more than 10 percent in population. With the exception of Johnson County in which the growth of the University of Iowa influenced the population increase, the growth of the urban centers of Davenport, Cedar Rapids and Dubuque influenced the population increases in these counties.

In central Iowa, Warren and Story counties experienced more than 10 percent increase in population. A major factor affecting Story County's growth rate has been the growth of Iowa State University, while the proximity of Warren County to the Des Moines metropolitan area has influenced its growth rate. Polk County, containing Iowa's largest city, had a population growth rate of 7.4 percent during the past decade.

Most counties experiencing population growth had a population center greater than 25,000, or were located adjacent to counties with large urban centers. One rural county, Sioux, had a growth rate of 6.1 percent. The growth in manufacturing employment during the past decade in Sioux County contributed to its population growth.

Approximately 75 percent of Iowa's counties declined in population during the past decade. Ringgold County experienced the sharpest decline, -19.4 percent, followed by Adams, -15.3 percent; Osceola, -15.0 percent; Taylor, -14.6 percent; Franklin, -14.3 percent; and Wayne, -14.2 percent.

Fig. 8. County Population Trends, 1960-1970



KEY

- Over 10% Increase
- 0-10% Increase
- 0-10% Decrease
- Over 10% Decrease

Figure in each county represents the percentage change in population during 1960-1970.

Generally, the rural counties in southern, western, and northern Iowa declined in population during the past 10 years. The two southernmost tiers of counties had the sharpest population declines. The decline in agricultural employment in rural counties without a sufficient increase in employment in other sectors to offset the agricultural employment decline has resulted in out-migration from rural counties.

Rural-Urban Trends

Table 9 presents the rural-urban trends of Iowa's counties in 1970. Seventeen counties were classified as 100 percent rural. These were counties that had no incorporated places of 2,500 or more in 1970. This compares with 20 rural counties in 1960.

Fifty-eight counties had between 50 and 100 percent of the population living in rural areas. Of these 58 counties, seven experienced an increase in the percentage of the population living in rural communities during the last decade. Generally, this trend reflected population increases in rural areas adjacent to urban areas or small towns under 2,500 which are within commuting distances of larger population centers.

Table 9. Rural-urban population trends of Iowa counties, 1970.

Counties 100% Rural	Counties Over 50% But Less Than 100% Rural			Counties 50% Or More Urban
Adair	Allamakee	Floyd	Monroe	Black Hawk
Adams	Appanoose	Franklin	Montgomery	Cerro Gordo
Butler	Audubon	Greene	O'Brien	**Clay
Calhoun	Benton	*Grundy	Osceola	Clinton
Clayton	Boone	Hamilton	Palo Alto	Des Moines
Fremont	Bremer	*Hancock	Plymouth	Dubuque
Guthrie	Buchanan	Hardin	Poweshiek	Emmet
Ida	Buena Vista	Harrison	Sac	Jefferson
Iowa	Carroll	Henry	Shelby	Johnson
Keokuk	Cass	Howard	Sioux	Lee
Louisa	Cedar	Humboldt	Tama	Linn
Pocahontas	Cherokee	Jackson	Warren	**Mahaska
Ringgold	Chickasaw	Jasper	Washington	Marion
Taylor	Clarke	Jones	Winnebago	Marshall
Van Buren	Crawford	Kossuth	Winneshiek	Muscatine
Wayne	Dallas	Lucas	***Wright	Page
Worth	Davis	Lyon		Polk
	*Decatur	Madison		Pottawattmie
	Delaware	Mills		Scott
	Dickinson	Mitchell		Story
	Fayette	Monona		Union
				Wapello
				Webster
				Woodbury

*Changed category from 100 percent rural in 1960.
**Changed category from over 50 percent but less than 100 percent rural in 1960.
***Changed category from 50 percent or more urban in 1960.

Although 57.2 percent of the state's population lived in urban areas in 1970, only 24 counties had 50 percent or more of the residents living in urbanized areas and incorporated places of 2,500 or more outside urbanized areas. This compares to 23 counties which were 50 percent or more urban in 1960.

Table 10 presents the population trends in metropolitan and nonmetropolitan counties, 1950-70. For the purposes of comparison, counties which had one or more population centers of 25,000 or more were classified as metropolitan, while the remaining counties were classfied as nonmetropolitan.

Table 10. Population trends in metropolitan and nonmetropolitan counties, 1950-1970.

Types of Counties	YEAR		
	1950	1960	1970
Metropolitan[1]			
Number	13	14	15
Population	1,051,533	1,262,247	1,425,161
% of State Total	40.1	45.8	50.6
% Change		20.0	12.9
Nonmetropolitan[2]			
Number	86	85	84
Population	1,569,540	1,495,290	1,399,215
% of State Total	59.9	54.2	49.4
% Change		-4.7	-6.4

[1]Counties which had one or more population centers of 25,000 or more. In 1970, these counties were Black Hawk, Cerro Gordo, Clinton, Des Moines, Dubuque, Johnson, Linn, Marshall, Polk, Pottawattamie, Scott, Story, Wapello, Webster and Woodbury.

[2]Counties which did not have a population center of 25,000 or more. Includes all counties not mentioned in above footnote for 1970.
Source: Computed from the U.S. Bureau of the Census data.

Since 1950, the number of counties having one or more population centers of 25,000 or more has increased from 13 to 15. In 1950, approximately 40 percent of Iowa's population lived in 13 metropolitan counties, while approximately 50 percent of Iowa's population lived in 15 metropolitan counties in 1970.

In contrast, the nonmetropolitan or rurally oriented counties have continued to decline in both total population and the proportion of the state total. In 1950, nearly 60 percent of Iowa's population lived in 86 nonmetropolitan counties, while nearly 50 percent of the total population resided in 84 nonmetropolitan counties in 1970. This reflects a continued trend toward urbanization in Iowa.

Migration

Fig. 9 presents the county migration trends, 1960-1970. Only seven counties showed a net in-migration during the decade. Warren County had the highest percentage net in-migration, 18.9 percent, followed by Johnson--

14.3 percent; Story--12.0 percent; Scott--5.5 percent; Linn--3.3 percent; Dallas--2.5 percent; and Muscatine--0.7 percent. Johnson and Story counties, where two of the three state universities are located, had significant in-migration. The remaining counties showing net in-migration were either counties with major urban centers or counties adjacent to metropolitan centers.

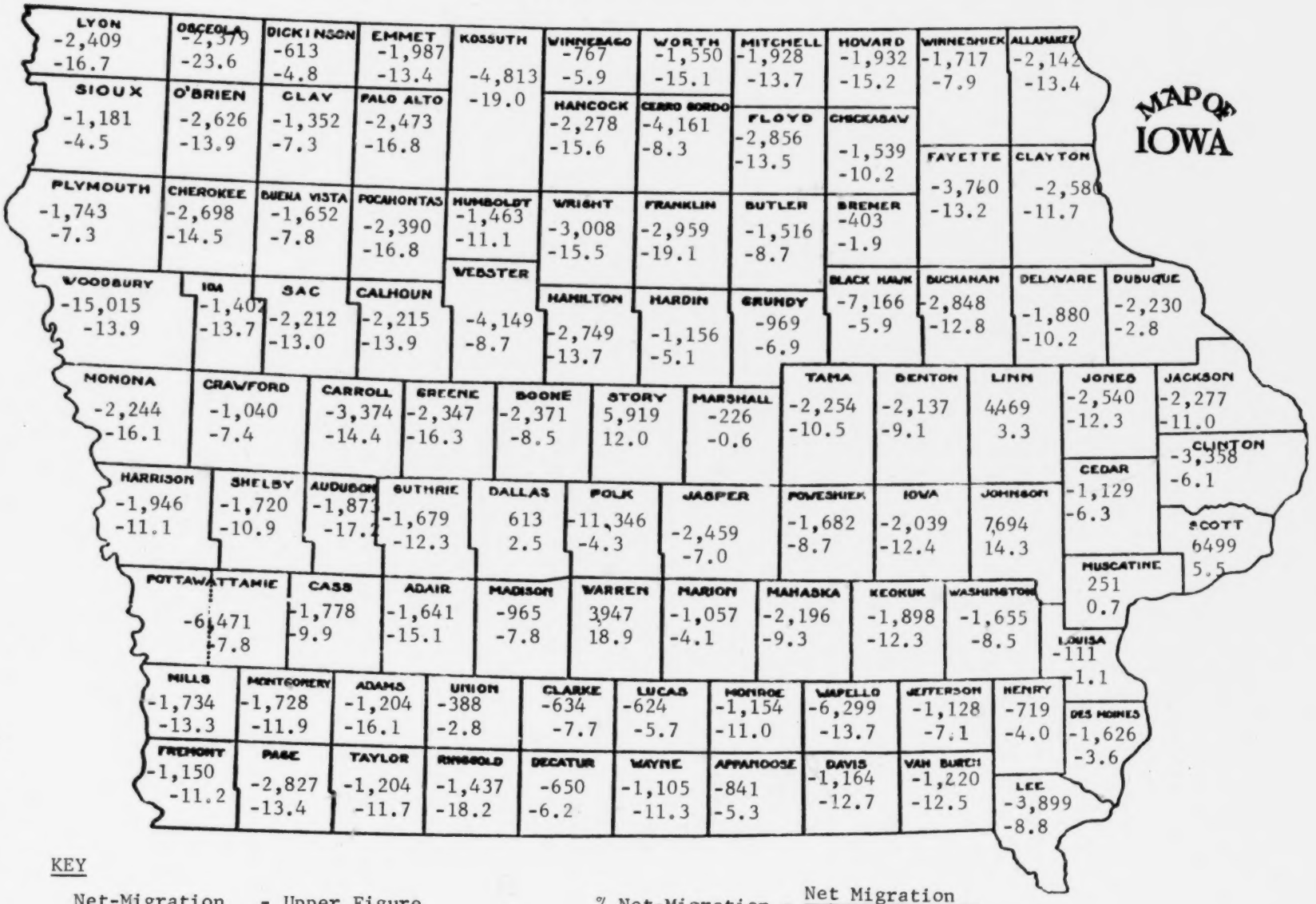
Ninety-two counties experienced a net out-migration during the past 10 years. The net out-migration ranged from -0.6 percent in Marshall County to a high of -23.6 percent for Osceola County.

Although 56,000 fewer people moved out of the state during the past decade as compared to the previous decade, 16 counties showed an increase in the percentage net out-migration during the past 10 years. These counties include Buchanan, Cedar, Cerro Gordo, Clinton, Emmet, Fayette, Franklin, Hamilton, Howard, Iowa, Jackson, Jasper, Jones, Osceola, Woodbury and Wright. With the exception of Cerro Gordo, Clinton, Emmet and Wright, these counties were predominately rural. In general, the counties which experienced increasing out-migration were located in the northern half of Iowa.

The rate of out-migration declined in 73 counties during the past decade compared to the previous one. In general, the rate of out-migration declined significantly in several southern Iowa counties. Many of these counties experienced higher out-migration during the 1950's. The three southern Iowa counties experiencing the greatest decline in net out-migration were Appanoose with a decline from -21.7 percent in 1950-60 to -5.3 percent during 1960-70; Union, -18.6 percent to -2.8 percent; and Decatur, -21.5 percent to -6.2 percent.

The out-migration of youth and younger families has resulted in both a lower birth rate and lower natural increase (excess of births over deaths). Of Iowa's 99 counties, seven had a natural decrease in population during the past 10 years. The counties and their natural decrease (excess of deaths over births) during the past decade were: Taylor, 294; Wayne, 290; Appanoose, 167; Decatur, 152; Lucas, 136; Ringgold, 100; and Clarke, 7.

Fig. 9. County Migration Trends, 1960-1970



KEY

Net-Migration - Upper Figure
% Net-Migration - Lower Figure

$$\% \text{ Net-Migration} = \frac{\text{Net Migration}}{\text{1960 Population}}$$

IMPLICATIONS

Although Iowa's population growth rate has been steady, significant population trends have occurred within the state during the past twenty years. An important factor affecting population changes within Iowa has been the continuing advances in agricultural technology. With the replacement of labor by capital, the number of farm families has continued to decline.

Projections for the next 10 years suggest that the number of farm families will continue to decline. Although the rate of movement of people away from farms has remained high in the past, the number of people involved has declined as the size of the farm population has declined. With fewer people on farms, the potential for further large scale migration from farms is more limited.

The significant decline in agricultural employment in rural counties without a sufficient increase in employment in other economic sectors to offset agricultural employment decline has resulted in out-migration and depopulation of many rural counties. The decisions of individuals to migrate from rural areas has a significant impact on the people who remain and their community institutions. With out-migration from rural areas, there are fewer people to support the existing social, economic, political and cultural institutions. Net migration loss affects schools, churches, businesses, local government and other community services which meet people's needs.

In many predominately rural areas, leaders and citizens will be faced with future decisions on how to provide quality goods and services for fewer people. Decision-makers will be faced with the alternatives of living with rising economic costs and a declining clientele or exploring the possibilities of merging activities and facilities with other communities on a multi-community, county, or area basis.

Decision-makers and citizens in predominately rural areas may wish to cooperate in securing new export employment -- employment that depends upon demands for goods and services originating outside the area -- in an attempt to offset the expected decline in farm employment. Although it is unlikely that all rural communities will be able to acquire new employment opportunities, it is possible that several communities cooperating and planning together on a county, multi-county or area basis may obtain new employment opportunities to offset the expected population decline.

Other factors affecting the composition of the population in rural areas include the selectivity of migration and the declining birth rate. With the out-migration of young people and the declining birth rate, the natural increase in population (excess of births over deaths) in rural areas has declined. The implications are that there will be a decline in school enrollments, particularly in the rural elementary grades during the next few years. With the decline in enrollment, some existing educational facilities may not be utilized.

Another result of the out-migration of young people and young families from rural areas is the tendency for the remaining population to become older. A concern of decision-makers and citizens in Iowa is providing quality services for its senior citizens. Services needed by the senior citizens include housing, health care, transportation, recreation, social, financial and others.

The trend toward urbanization in Iowa has resulted in the rapid development of urban and suburban communities. Suburban communities adjacent to Iowa's largest urban centers of Des Moines, Cedar Rapids and Davenport had the highest growth rates during the past decade. With population increasing in the urban, suburban, and outlying rural areas adjacent to urban centers, the population in metropolitan areas has increased significantly.

The expanding population base in Iowa's metropolitan areas has created an increasing demand for more goods and services. People need health care, employment opportunities, schools, libraries, churches, streets, public water supplies, public sewage systems, garbage disposal, police protection, fire protection, parks, playgrounds, civic centers, shopping centers, transportation systems, etc.

If high quality services are to be provided in the metropolitan areas to meet present and future needs, it will be necessary to plan for their future growth and development. Successful planning in metropolitan areas will require the fullest cooperation and participation of both leaders and citizens across town, city, and county lines. Success and progress in the future development and growth of Iowa's metropolitan areas can be achieved if leaders and citizens face the problems squarely and deal with them cooperatively.

The continuing trends of declining population in rural areas and increasing population in urban areas within Iowa suggest the need to constantly re-evaluate the institutional balance. Institutional balance is the relationship of number, location and quality of churches, governmental functions, medical services, schools, shopping centers, voluntary groups and other social systems attempting to serve people's needs. With a continued decline in total population in rural areas, there are fewer people to support the existing social, economic, governmental and cultural institutions which provide the goods and services to meet people's needs. In urban areas, there is an expanding population base to support the existing community institutions which provide the goods and services to meet the needs of people. In both rural and urban areas, decision-makers and citizens need to consider these trends in adjusting existing institutions or reorganizing institutions to meet the social, economic, governmental and environmental needs of Iowa's people.

APPENDIX A

County population trends, 1950-1970.

County	Population Totals			Percentage Change	
	1950	1960	1970	1950-1960	1960-1970
Adair	12,292	10,893	9,487	-11.4	-12.9
Adams	8,753	7,468	6,322	-14.7	-15.3
Allamakee	16,351	15,982	14,968	- 2.3	-6.3
Appanoose	19,683	16,015	15,007	-18.6	-6.3
Audubon	11,579	10,919	9,595	- 5.7	-12.1
Benton	22,656	23,422	22,885	3.4	-2.3
Black Hawk	100,448	122,482	132,916	21.9	8.5
Boone	28,139	28,037	26,470	- 0.4	-5.6
Bremer	18,884	21,108	22,737	11.8	7.7
Buchanan	21,927	22,293	21,746	1.7	-2.5
Buena Vista	21,113	21,189	20,693	0.4	-2.3
Butler	17,394	17,467	16,953	0.4	-2.9
Calhoun	16,925	15,923	14,287	- 5.9	-10.3
Carroll	23,065	23,431	22,912	1.6	-2.2
Cass	18,532	17,919	17,007	- 3.3	-5.1
Cedar	16,910	17,791	17,655	5.2	-0.8
Cerro Gordo	46,053	49,894	49,335	8.3	-1.1
Cherokee	19,052	18,598	17,269	- 2.4	-7.1
Chickasaw	15,228	15,034	14,969	- 1.3	-0.4
Clarke	9,369	8,222	7,581	-12.2	-7.8
Clay	18,103	18,504	18,464	2.2	-0.2
Clayton	22,522	21,962	20,606	- 2.5	-6.2
Clinton	49,664	55,060	56,749	10.9	3.1
Crawford	19,741	18,569	19,116	- 5.9	2.9
Dallas	23,661	24,123	26,085	2.0	8.1
Davis	9,959	9,199	8,207	- 7.6	-10.8
Decatur	12,601	10,539	9,737	-16.4	-7.6
Delaware	17,734	18,483	18,770	4.2	1.6
Des Moines	42,056	44,605	46,982	6.1	5.3
Dickinson	12,756	12,574	12,565	- 1.4	-0.1
Dubuque	71,337	80,048	90,609	12.2	13.2
Emmet	14,102	14,871	14,009	5.5	-5.8
Fayette	28,294	28,581	26,898	1.0	-5.9
Floyd	21,505	21,102	19,860	- 1.9	-5.9
Franklin	16,268	15,472	13,255	- 4.9	-14.3
Fremont	12,323	10,282	9,282	-16.6	-9.7
Greene	15,544	14,379	12,716	- 7.5	-11.6
Grundy	13,722	14,132	14,119	3.0	-0.1
Guthrie	15,197	13,607	12,243	-10.5	-10. 0
Hamilton	19,660	20,032	18,383	1.9	-8.2

County population trends, 1950-1970 (continued).

County	Population Totals			Percentage Change	
	1950	1960	1970	1950-1960	1960-1970
Hancock	15,077	14,604	13,330	- 3.1	-8.7
Hardin	22,218	22,533	22,248	1.4	-1.3
Harrison	19,560	17,600	16,240	-10.0	-7.7
Henry	18,708	18,187	18,114	- 2.8	-0.4
Howard	13,105	12,734	11,442	- 2.8	-10.1
Humboldt	13,117	13,156	12,519	0.3	-4.8
Ida	10,697	10,269	9,190	- 4.0	-10.5
Iowa	15,835	16,396	15,419	3.5	-6.0
Jackson	18,622	20,754	20,839	11.4	0.4
Jasper	32,305	35,282	35,425	9.2	0.4
Jefferson	15,696	15,818	15,774	0.8	-0.3
Johnson	45,756	53,663	72,127	17.3	34.4
Jones	19,401	20,693	19,868	6.7	-4.0
Keokuk	16,797	15,492	13,943	- 7.8	-10.0
Kossuth	26,241	25,314	22,937	- 3.5	-9.4
Lee	43,102	44,207	42,996	2.6	-2.7
Linn	104,274	136,899	163,213	31.3	19.2
Louisa	11,101	10,290	10,682	- 7.3	3.8
Lucas	12,069	10,923	10,163	- 9.5	-7.0
Lyon	14,697	14,468	13,340	- 1.6	-7.8
Madison	13,131	12,295	11,558	- 6.4	-6.0
Mahaska	24,672	23,602	22,177	- 4.3	-6.0
Marion	25,930	25,886	26,352	- 0.2	1.8
Marshall	35,611	37,984	41,076	6.7	8.1
Mills	14,064	13,050	11,832	- 7.2	- 9.3
Mitchell	13,945	14,043	13,108	0.7	-6.7
Monona	16,303	13,916	12,069	-14.6	-13.3
Monroe	11,814	10,463	9,357	-11.4	-10.6
Montgomery	15,685	14,467	12,781	- 7.8	-11.7
Muscatine	32,148	33,840	37,181	5.3	9.9
O'Brien	18,970	18,840	17,522	- 0.7	-7.0
Osceola	10,181	10,064	8,555	- 1.1	-15.0
Page	23,921	21,023	18,507	-12.1	-12.0
Palo Alto	15,891	14,736	13,289	- 7.3	-9.8
Plymouth	23,252	23,906	24,312	2.8	1.7
Pocahontas	15,496	14,234	12,729	- 8.1	-10.6
Polk	226,010	266,315	286,101	17.8	7.4
Pottawattamie	69,682	83,102	86,991	19.3	4.7
Poweshiek	19,344	19,300	18,803	- 0.2	-2.6
Ringgold	9,528	7,910	6,373	-17.0	-19.4

County population trends, 1950-1970 (continued).

County	Population Totals			Percentage Change	
	1950	1960	1970	1950-1960	1960-1970
Sac	17,518	17,007	15,573	- 2.9	-8.4
Scott	100,698	119,067	142,687	18.2	19.8
Shelby	15,942	15,825	15,528	- 0.7	-1.9
Sioux	26,381	26,375	27,996	- 0.02	6.1
Story	44,294	49,327	62,783	11.4	27.3
Tama	21,688	21,413	20,147	- 1.3	-5.9
Taylor	12,420	10,288	8,790	-17.2	-14.6
Union	15,651	13,712	13,557	-12.4	-1.1
Van Buren	11,007	9,778	8,643	-11.2	-11.6
Wapello	47,397	46,126	42,149	- 2.7	-8.6
Warren	17,758	20,829	27,432	17.3	31.7
Washington	19,557	19,406	18,967	- 0.8	-2.3
Wayne	11,737	9,800	8,405	-16.5	-14.2
Webster	44,241	47,810	48,391	8.1	1.2
Winnebago	13,450	13,099	12,990	- 2.6	-0.8
Winneshiek	21,639	21,651	21,758	0.1	0.5
Woodbury	103,917	107,849	103,052	3.8	-4.4
Worth	11,068	10,259	8,968	- 7.3	-12.6
Wright	19,652	19,447	17,294	- 1.0	-11.1
TOTAL	2,621,073	2,757,537	2,825,041	5.2	2.5

Source: Bureau of the Census data.

APPENDIX B

Age structure of Iowa's population

	1960						1970					
Age Group	Total	%	Males	%	Females	%	Total	%	Males	%	Females	%
0-4	307,214	11.1	156,766	5.7	150,448	5.5	233,212	8.3	119,446	4.2	113,766	4.0
5-9	291,819	10.6	149,086	5.4	142,733	5.2	280,101	9.9	142,939	5.1	137,162	4.9
10-14	258,819	9.4	132,287	4.8	126,532	4.6	293,440	10.4	149,838	5.3	143,602	5.1
15-19	202,940	7.4	100,914	3.7	102,026	3.7	273,475	9.7	137,513	4.9	135,962	4.8
20-24	155,335	5.6	73,845	2.6	81,490	3.0	203,691	7.2	95,553	3.4	108,138	3.8
25-34	316,856	11.5	156,081	5.7	160,775	5.8	314,768	11.1	155,568	5.5	159,200	5.6
35-44	335,105	12.1	164,745	6.0	170,360	6.2	296,896	10.5	145,448	5.1	151,448	5.4
45-54	302,503	11.0	150,235	5.4	152,268	5.5	310,852	11.0	151,261	5.4	159,591	5.6
55-59	134,918	4.9	65,904	2.4	69,014	2.5	140,549	5.0	68,197	2.4	72,352	2.6
60-64	124,343	4.5	59,943	2.2	64,400	2.3	127,099	4.5	60,339	2.1	66,760	2.4
65-74	205,668	7.5	96,834	3.5	108,834	3.9	200,561	7.1	88,447	3.1	112,114	4.0
75 & over	122,017	4.4	52,407	1.9	69,610	2.5	149,732	5.3	58,318	2.1	91,414	3.2
TOTAL	2,757,537	100.0	1,359,047	49.3	1,398,490	50.7	2,825,041	100.0	1,372,867	48.6	1,451,509	51.4

Source: Bureau of Census data.